

CLAIMS

[1] An organism information detecting apparatus which is an organism information detecting apparatus for detecting organism information of a subject, the organism information detecting apparatus comprising:

organism information detecting means for detecting the organism information of the subject by being brought into contact with the subject for a previously determined sampling time period and outputting an organism signal;

organism information data calculating means for calculating an organism information data by processing the organism signal;

supplementary data calculating means for calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data; and

data storing means for relating the organism information data and the supplementary data to be stored.

[2] The organism information detecting apparatus according to Claim 1, further comprising:

motion state determining means for determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously

determined threshold.

[3] The organism information detecting apparatus according to Claim 2, further comprising:

reliability degree determining means for determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state determined by the motion state determining means is a previously determined motion state.

[4] The organism information detecting apparatus according to Claim 3, further comprising:

informing means for informing the organism information data to the subject; and

informing data determining means for determining the organism information data informed by the informing means based on whether the reliability degree determined by the reliability degree determining means is a previously determined reliability degree.

[5] The organism information detecting apparatus according to Claim 4, further comprising:

power source controlling means for controlling ON/OFF of a power source of the organism information detecting means based on whether the reliability degree determined by the

reliability determining means is the previously determined reliability degree.

[6] The organism information detecting apparatus according to Claim 1, further comprising:

communicating means for communicating information with an organism information processing server disposed at a remote location; and

schedule executing means for detecting the organism information based on schedule information of measuring the organism information from the organism information processing server received by the communicating means;

wherein the communicating means transmits the organism information data and the supplementary data to the organism information processing server as a data of result of executing the schedule executing means.

[7] The organism information detecting apparatus according to Claim 1, wherein the organism information detecting apparatus equally divides the sampling time period into a plurality of pieces of block time periods, defining the sampling time period at and after a second time by erasing an oldest one block time period in the sampling time period at a preceding time and adding one block time period for measuring newly, and the supplementary data calculating means calculates an

average value of each of the block time periods of the variation amount per time of the data constituted by digitizing the organism signal and calculating an average value of the average values of the respective block time periods as the supplementary data in the sampling time period.

[8] The organism information detecting apparatus according to any one of Claims 1 through 7, wherein the organism information is a waveform of the artery, the organism information detecting means subjects a digital data of a component of a pulse wave included in the organism signal of the sampling time period to a frequency analysis and calculates a pulsation number as the organism information data.

[9] An organism information processing server which is an organism information processing server for communicating information with an organism information detecting apparatus for outputting an organism signal by detecting organism information of a subject by a previously determined sampling time period, calculating an organism information data by processing the organism signal and calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data and executing a previously determined processing to the information received from the organism

information detecting apparatus, the organism information processing server comprising:

communicating means for receiving the organism information data and the supplementary data from the organism information detecting apparatus;

data storing means for relating the organism information data and the supplementary data to be stored;

motion state determining means for determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously determined threshold; and

reliability degree determining means for determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state determined by the motion state determining means is a previously determined motion state.

[10] An organism information detecting system which is an organism information detecting system comprising an organism information detecting apparatus for detecting organism information of a subject, and an organism information processing server for executing a previously determined processing to the information received from the organism information detecting apparatus;

wherein the organism information detecting apparatus

includes:

organism information detecting means for detecting the organism information of the subject by being brought into contact with the subject by a previously determined sampling time period and outputting an organism signal;

organism information data calculating means for calculating an organism information data by processing the organism signal;

supplementary data calculating means for calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data; and

communicating means for relating the organism information data and the supplementary data to be transmitted to the organism information processing server; and

wherein the organism information processing server includes:

communicating means for receiving the organism information data and the supplementary data from the organism information detecting apparatus;

data storing means for relating the organism information data and the supplementary data to be stored;

motion state determining means for determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously

determined threshold; and

reliability degree determining means for determining a reliability degree of the organic information data related to the supplementary data based on whether the motion state determined by the motion state determining means is a previously determined motion state.

[11] An organism information processing method which is an organism information processing method used in an organism information detecting apparatus for detecting organism information of a subject, the organism information processing method comprising:

a step of detecting the organism information of the subject by being brought into contact with the subject by a previously determined sampling time period and outputting an organism signal;

a step of calculating an organism information data by processing the organism signal;

a step of calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data; and

a step of relating the organism information data and the supplementary data to be stored.

[12] The organism information processing method according to Claim 11, further comprising:

a step of determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously determined threshold.

[13] The organism information processing method according to Claim 12, further comprising:

a step of determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state is a previously determined motion state.

[14] The organism information processing method according to any one of Claims 11 through 13, wherein the organism information is a wave of the artery, and the step of calculating the organism information data subjects a digital data of a component of a pulse wave included in the organism signal to a frequency analysis and calculating a pulsation number as an organism information data.

[15] An organism information processing method which is an organism information processing method of communicating information with an organism information detecting apparatus for detecting organism information of a subject by a previously

determined sampling time period and outputting an organism signal, calculating an organism information data by processing the organism signal, and calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data and executing a previously determined processing to the information received from the organism information detecting apparatus, the organism information processing method comprising:

a step of relating the organism information data and the supplementary data received from the organism information detecting apparatus to be stored;

a step of determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously determined threshold; and

a step of determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state is a previously determined motion state.

[16] An organism information processing method which is an organism information processing method used in an organism information detecting system comprising an organism information detecting apparatus for detecting organism

information of a subject, and an organism information processing server for executing a previously determined processing to the information received from the organism information detecting apparatus;

wherein the organism information detecting apparatus executes a method comprising:

a step of detecting the organism information of the subject by being brought into contact with the subject by a previously determined sampling time period;

a step of calculating an organism information data by processing the organism signal;

a step of calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data; and

a step of relating the organism information data and the supplementary data to be transmitted to the organism information processing server; and

wherein the organism information processing server executes a method comprising:

a step of relating the organism information data and the supplementary data received from the organism information detecting apparatus to be stored;

a step of determining a motion state of the subject when the organism information is detected based on whether the

supplementary data exceeds a previously determined threshold;
and

a step of determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state is a previously determined motion state.

[17] A motion state determining method which is a motion state determining method of determining a motion state of a subject when organism information is detected in an organism information detecting apparatus comprising organism information detecting means brought into contact with the subject for detecting the organism information of the subject by the organism information detecting means, the motion state determining method comprising:

a step of acquiring a data constituted by digitizing an organism signal during a previously determined sampling time period outputted by the organism information detecting means;

a step of calculating an average value of a variation amount per time of the data; and

a step of determining the motion state of the subject when the organism information is detected based on whether the average value of the variation amount exceeds a previously determined threshold.

[18] A reliability degree determining method which is a reliability degree determining method for determining a reliability degree of organism information in an organism information detecting apparatus comprising organism information detecting means brought into contact with a subject for detecting the organism information of the subject by the organism information detecting means, the reliability degree determining method comprising:

a step of acquiring a data constituted by digitizing an organism signal during a previously determined sampling time period outputted by the organism information detecting means;

a step of calculating an average value of a variation amount per time of the data;

a step of determining a motion state of the subject when the organism information is detected based on whether the average value of the variation amount exceeds a previously determined threshold; and

a step of determining a reliability of the organism information based on whether the motion state is a previously determined motion state.

[19] A program which is a program for making a computer realize a function of determining a motion state of a subject by using

a digital data of an organism signal outputted by organism information detecting means of an organism information detecting apparatus comprising the organism information detecting means for detecting organism information of the subject by being brought into contact with the subject for making the computer realize:

a function of making the computer read the digital data;

a function of calculating an average value of a variation amount per time of the digital data; and

a function of determining the motion state of the subject when the organism information is detected based on whether the average value of the variation amount exceeds a previously determined threshold.

[20] A program which is a program for making a computer realize a function of determining a reliability of organism information by using a digital data of an organism signal outputted by organism information detecting means of an organism information detecting apparatus comprising the organism information detecting means for detecting the organism information of the subject by being brought into contact with the subject for making the computer realize:

a function of making the computer read the digital data;

a function of calculating an average value of a variation amount per time of the digital data;

a function of determining the motion state of the subject when the organism information is detected based on whether the average value of the variation amount exceeds a previously determined threshold; and

a function of determining a reliability degree of the organism information based on whether the motion state is a previously determined motion state.